



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,865	03/31/2004	Shu-Ping Chang	SOM920030005US2	5589
59887	7590	01/13/2009		
RYAN, MASON & LEWIS, LLP 1300 POST ROAD SUITE 205 FAIRFIELD, CT 06824			EXAMINER JAIN, RAJ K	
			ART UNIT 2416	PAPER NUMBER
			MAIL DATE 01/13/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/813,865	<b>Applicant(s)</b> CHANG ET AL.	
	<b>Examiner</b> RAJ JAIN	<b>Art Unit</b> 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-28 is/are rejected.
- 7) ☒ Claim(s) 13 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 28 is objected to because of the following informalities: Reword the claim as follows; 28. ~~An article of manufacture for providing adaptive Quality of Service (QoS), the article of manufacture comprising:~~ A computer readable medium containing one or more programs which when executed by a processor to implement the steps of:.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

Claim(s) 1-16 is/are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled "Clarification of 'Processes' under 35 U.S.C. 101"). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim 1 for example should be tied to an apparatus or device such as a "selector" to perform the step of "selecting".

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 8, 15-24, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carino, Jr. (USP 5,754,841) in view of Arbabi et al (USP 5,461,699).

Regarding claim(s) 1, 17 and 28, Carino discloses a method for providing adaptive Quality of Service (QoS) (col 6 lines 63-66, client adapted Qos), the method comprising the steps of: selecting, based on one or more QoS criteria corresponding to a client, one or more given data items suitable for sending to the client in response to a query from the client, the one or more given data items selected from a set of data items (abstract, col 4 lines 9-27; col 6 lines 60-67, client 220 queries interface 206 with specific data items and user selected Qos criteria); and

determining one or more statistics associated with the one or more given data items (fig. 3A, col 8 lines 14-18, the resolver 308 optimizes client 220s query based on required data items).

Carino explicitly fails to disclose wherein the one or more statistics are useable to modify which data items are included in the set of data items.

Arbabi discloses wherein the one or more statistics are useable to modify which data items are included in the set of data items (col 8 lines 35-60). Statistical methods have tests of significance for input variables and confidence intervals for output variables and thus provide a predictive outcome based on specific statistical input records. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Arbabi within Carino so as to have predictive outcome based on specific statistical input records.

Regarding claim(s) 2 and 18, Carino discloses removing one of data items from the set of data items when the one data item has a corresponding statistic below a predetermined value (col 8 lines 25-37).

Regarding claim(s) 3 and 19, Carino discloses the data format comprises one or more of the following: file format of the one or more given data items; compression technique used to create the one or more given data items; compression level of the one or more given data items; image dimensions for the one or more given data items; and text size for the one or more given data items (col 10 line 58 – col 11 line 9).

Regarding claim(s) 4 and 20, Carino discloses one or more QoS criteria comprise one or more of the following: a QoS subscription of a user, network constraints, device constraints, user preferences, a QoS level, and organizational policies (col 6 lines 63-67; col 9 lines 60-67).

Regarding claim(s) 5 and 21, Carino discloses the one or more QoS criteria comprise one or more organizational policies and at least one of the one or more organizational policies comprises a cost (col 8 lines 13-25; lines 45-44; col 14 lines 16-25).

Regarding claim(s) 6 and 22, Carino discloses various data items as video, audio etc (Fig. 1, col 3 lines 49-61).

Regarding claim(s) 7 and 23, Carino discloses selecting at least a portion of the one or more QoS criteria by using one or more of the following: a user identification corresponding to the client and a device identification corresponding to the client (col 6 lines 63-67).

Regarding claim(s) 8 and 24, Carino discloses plurality of resources associated with the communication network and wherein the step of determining one or more given data items further comprises the step of determining if a given data item meets the one or more QoS criteria (col 6 line 60 – col 7 line 15, QoS criteria is selected by client based on data to be traversed such as video, audio etc.).

Regarding claim(s) 15, 16 and 27, Carino discloses series of query plans to be executed (col 4 lines 60-65; col 9 lines 42-67).

Claims 9, 10, 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carino, Jr. (USP 5,754,841) in view of Arbabi et al (USP 5,461,699) and further in view of Walpole et al (US 2003/0233464)

Regarding claim(s) 9, 11 and 25, Carion and Arbabi fails to disclose transcoding of data based on specific QoS criteria.

Walpole discloses transcoding of data based on specific QoS criteria (paras 38, 42). Adapting data in a shared heterogeneous network environment, such as the Internet, relates to quality-adaptive streaming transmission of data in such an

environment. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Walpole within Carion so as to provide an heterogeneous network environment for different data types between clients and servers.

Regarding claim(s) 10, Carion and Arbabi fails to disclose priority labeling based on specific QoS criteria. Walpole discloses priority labeling based on specific QoS criteria (para 15). Reasons for combining same as for claim 9 above.

Claim 12 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carino, Jr. (USP 5,754,841) in view of Arbabi et al (USP 5,461,699) and further in view of Aggarwal et al (US 20030081624 A1)

Carino and Arbabi fails to disclose QoS criteria levels or predefined QoS levels based on subscriber requirements.

Aggarwal discloses QoS criteria levels or predefined QoS levels based on subscriber requirements (abstract, paras 14 & 25.) Differing QoS levels provides for improved traffic management in network devices, e.g., routers, switches and other traffic bearing nodes (collectively, "network devices") and therefore reducing switching conflict delays, and that support multiple services simultaneously, i.e., any protocol on any interface port in a network device. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Aggarwal within Carino so as to improve network performance to allow for multiple services to be performed simultaneously on a given network as desired.

### ***Allowable Subject Matter***

Claims 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection. The new grounds being a 35 U.S.C. 101 for claims 1-16.

While Examiner has reviewed all claims for proper support within the specifications, however, Examiner highly recommends the Applicant review all original claims as presented to have proper support in the specifications, if not, suggest amending the specifications to incorporate limitations of claims within the specifications as appropriate.

With respect to claim(s) 1, 17 and 28, Applicant contends "Bier does not disclose wherein the one or more statistics are useable to modify which data items are included in the set of data items.

Examiner respectfully disagrees, first off, Applicant's use of "Bier" as a reference is believed to be in error, the Applicant perhaps intended it to be "Arbabi", with that said, Arbabi discloses one or more statistics are useable to modify which data items are included in the set of data items (Fig. 1, col 2 lines 4-35; col 3 line 59-col 4 line 25; col 12 lines 1-15). The neural network 101 receives both historical data and statistical forecast to arrive at the desired output (col 3 lines 65-67), if the output is other than that desired than the input data or statistical values is modified or adjusted, for example (see for example col 4 lines 10-20). The statistical data for year 1994 is input to replace the 1993 statistical data and thus the statistical data items are modified from the original set which was for year 1993. Furthermore, statistical models require assumptions about

Art Unit: 2416

the data being input and therefore is apparent that one or more data items may have to be modified to arrive at desired output levels (col 1 lines 58-61).

Thus based on above reasoning, Examiner again asserts that either alone or in combination the cited references do in fact teach all limitations of claims 1, 17 and 28 and therefore the rejection to claims 1, 17 and 28 is sustained.

Furthermore, the rejection to claims 2-12, 15-28 is also sustained as being properly rejected under one or more above cited art(s).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJ JAIN whose telephone number is (571)272-3145. The examiner can normally be reached on M-TH.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

***/Raj Jain/***

Examiner, Art Unit 2416